Department of Homeland Security - Addressing Standards Needs for Emergency Responders

3rd Annual Symposium and Exhibition on Terrorism Preparedness and Response
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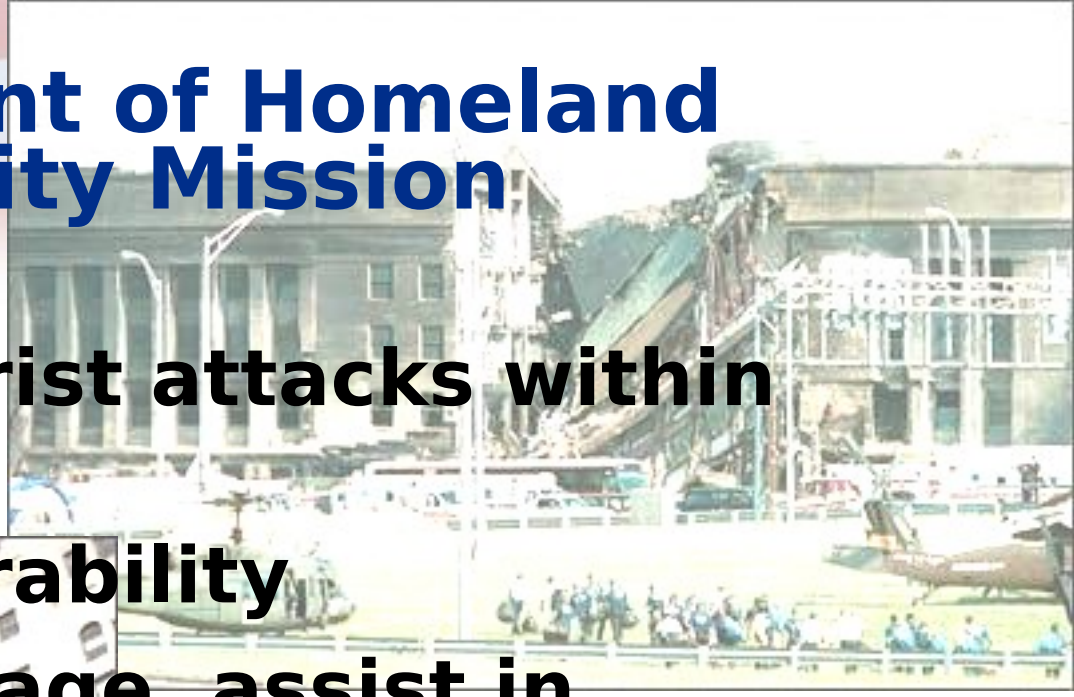
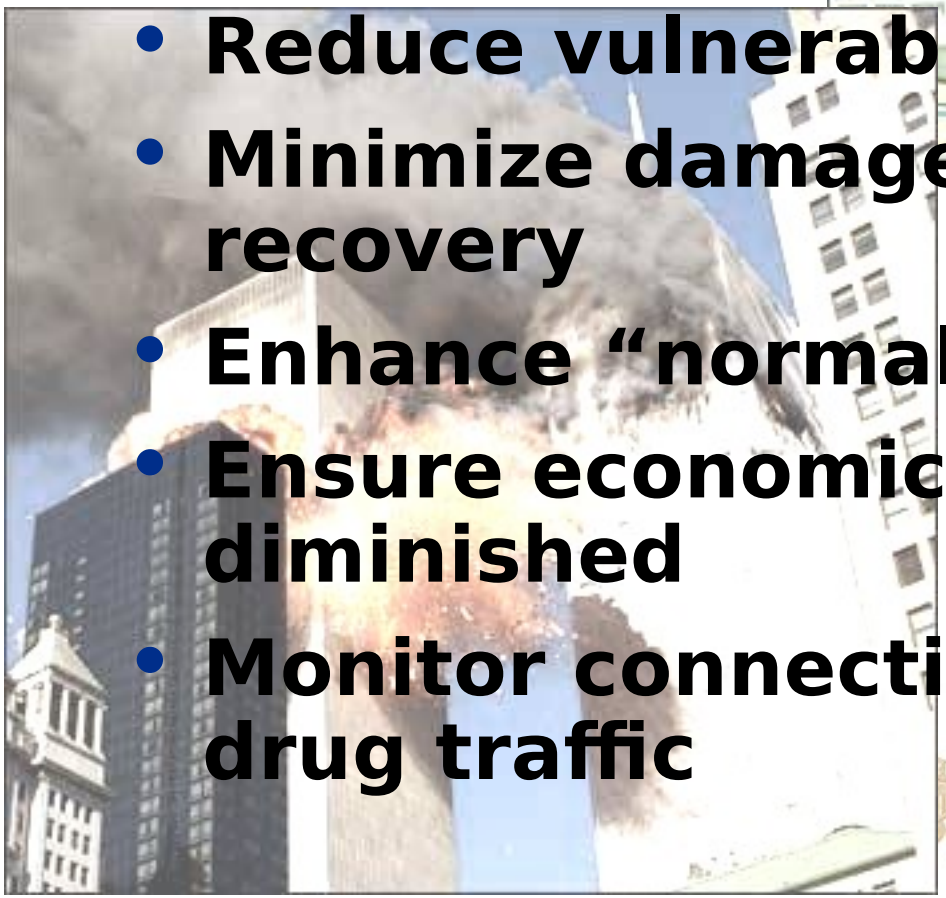
Department of Homeland Security Mission



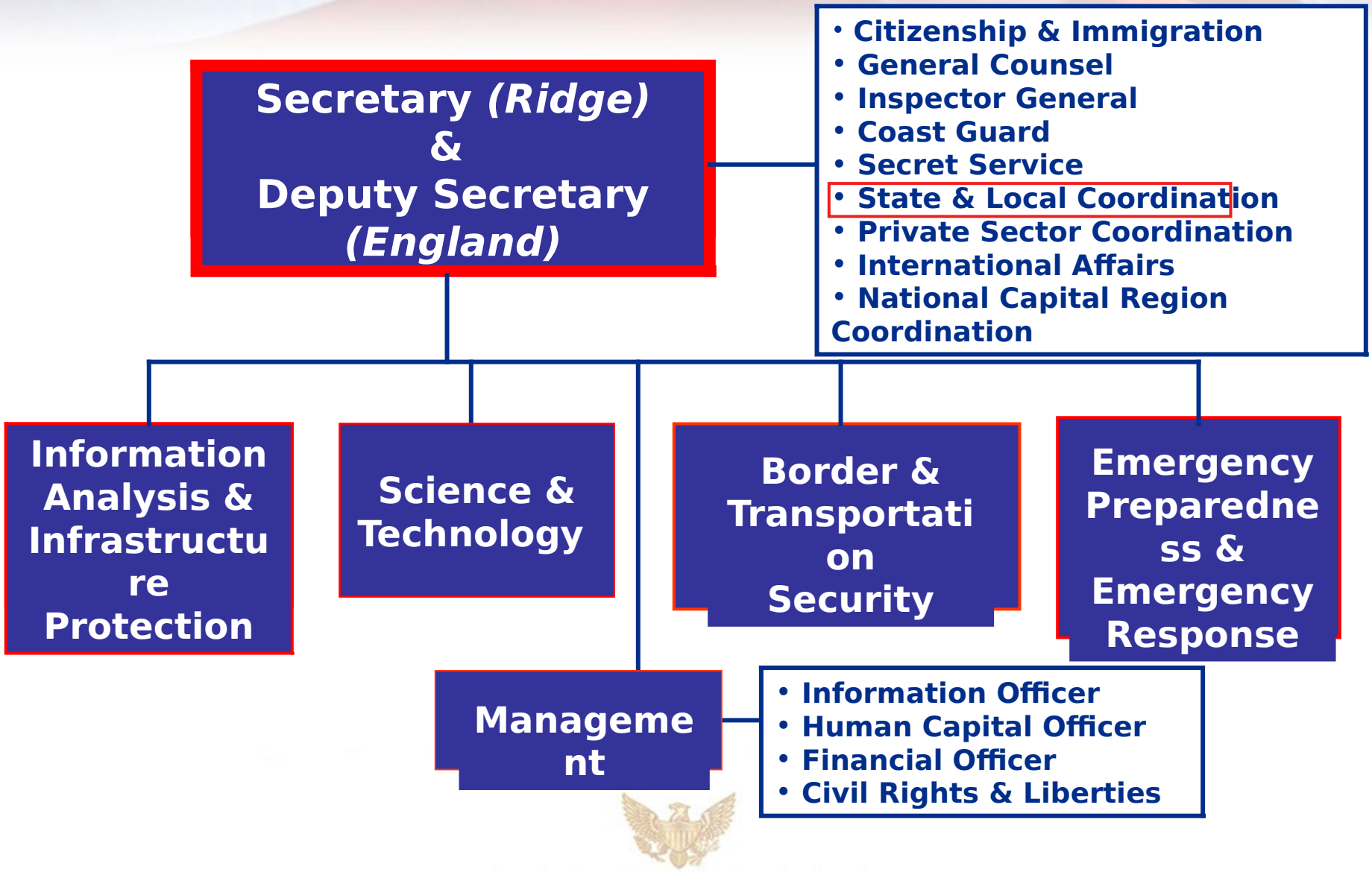


- Prevent terrorist attacks within the US
- Reduce vulnerability
- Minimize damage, assist in recovery
- Enhance “normal” functions
- Ensure economic security is not diminished
- Monitor connections with illegal drug traffic

Discussion Topics

- **Organization and Objectives of the Department of Homeland Security (DHS)**
- **Standards for Emergency Responders**

General DHS Organization Structure



Information Analysis and Infrastructure Protection Directorate Mission

- **Access, receive, analyze information - law enforcement, intelligence, and other**
- **Carry out comprehensive assessments of vulnerabilities**
- **Integrate information, analyses, assessments**
- **Develop comprehensive national plan for securing key resources and Critical Infrastructure**
- **Administer Homeland Security Advisory System**
- **Establish (with CIO) secure communications and information systems**

Borders and Transportation Security Directorate Mission

- **Prevent entry of terrorists and instruments of terrorism into the US**
- **Secure borders, territorial waters, ports, terminals, waterways, and air, land, sea transportation systems**
- **Carry out immigration enforcement**
- **Administer customs laws**
- **Conduct agricultural product inspections**
- **Ensure speedy, orderly, and efficient flow of lawful traffic and commerce**

Emergency Preparedness and Emergency Response Directorate Mission

- **Help ensure effective response to terrorist attacks, disasters, & other emergencies**
- **Support Nuclear Incident Response Team**
- **Provide the Federal Government response to terrorist attacks & major disasters**
- **Build comprehensive national incident management system**
- **Develop comprehensive programs for interoperable communications technology & help ensure that emergency response providers acquire such technology**

Science and Technology Directorate Mission

- **Advocate and lead developing and deploying countermeasures for the nuclear, biological, chemical, and radiological threats and support conventional mission needs**
- **Conduct research, development, test, evaluation, and timely transition into the field of new operational capabilities****

***Standards are an integral part of S&T's cradle-to-grave research, development, test, evaluation and transition to service product cycle to assess the effectiveness of defensive system components and of the composite system*

Office of State and Local Coordination

- **Office became operative on 24 January**
  - Developing a coordinated approach for implementing a homeland security communication system that includes federal, state, local, territorial, and tribal government
  - Reaching out into the community to understand concerns and requirements
  - Becoming a conduit for information in normal and emergency conditions
- **Goal is to facilitate "one-stop-shopping" for state, local, territorial, and tribal agencies**
- **State Homeland Security Advisors are primary points of contact**

A Number of Issues Remain to be Addressed by OSL

- **Grants and funding**
  - **Secretary Ridge has committed to develop a streamlined grants process**
- **Treatment of sensitive information**
  - **Recognized need for process to identify and share information**
- **Communication methods**
- **Coordination of performance measurement standards for planning, exercises, training, equipment, interoperability, mutual aid, and other issues**

DHS Science and Engineering Support for DHS Mission Needs

- **Technologies and systems will be developed and fielded to address each of the following means and targets of attack:**
  - **Radiation/Nuclear**
  - **Biological**
  - **Critical Infrastructure**
  - **Chemical/Explosive**
  - **Cyber/IT**
- **Countermeasures will be developed in categories of:**
  - **Detect/Prevent**
  - **Respond/Recover**
  - **Crisis Management/ Consequence Mitigation**
  - **Attribution/Forensics**
- **Conventional mission needs will also be addressed.**
- **Standards will be identified or developed for all technologies.**

Legal Requirements for DHS Standards

- **Need for standards explicit in language of President's 2002 Homeland Security Strategy and in National Academy of Science report**
- **"Safety Act" in the enabling legislation (HR5005, Subtitle G) requires that the Secretary identify, evaluate, and certify specific homeland security equipment technologies, and services.**

Importance of Standards in Homeland Security

- Development of standards will reduce the risk of a WMD terrorist attack to the US, save lives, reduce damage to critical systems in the event of a terrorist attack, and enhance resiliency with respect to post attack recovery.
- Success of the national strategy depends on effectiveness of an integrated, multi-layer, all-hazard defensive system
  - **Intelligence**
  - **Law enforcement - federal, state, territorial, tribal, local**
  - **Emergency responders and consequence managers**

General Homeland Security Standards Needs

- **Consensus National Standards Do Not Exist for Homeland Security Applications**
  - **Nuclear countermeasures relies on a patchwork of COTS and GOTS systems, originally designed for military, commercial nuclear power or DOE nuclear weapons facility operations and security.**
  - **Bio-agent detection and decontamination are essentially new and rapidly-evolving capabilities.**
  - **Tools for use in the event of chemical attacks are available, but have not been rigorously proven against chemical warfare agents in non-military applications**
  - **All homeland security providers (federal, state and local) are do not have the basic ability to communicate in crisis situations.**

General Homeland Security Standards Needs (cont'd)

- **Application of overly conservative and technically unsubstantiated standards for decontamination of large urban areas would lead to catastrophically large economic and psychological burdens**
- **Development of defensible forensic information may provide a critical deterrence component if we can demonstrate a robust ability to identify and bring to justice the perpetrators of an attack.**
- **Synthesis of all of these tools into a single cohesive and comprehensive system will clearly require a standard approach and performance metrics to gauge the effectiveness of the countermeasures.**

Steps in Meeting Emergency Responder Technology Needs in S&T

- **Develop and Prioritize List of System Needs/Requirements**
  - Address infrastructure and backbone needs
  - Also address surge capabilities for emergency/counter-terrorism applications
- **Determine method of addressing effectiveness, adequacy, appropriateness (standards)**
  - Current standards adequate?
  - Additional standards needed?
- **Develop list of available technologies/tools**
- **Assess technologies against standards**
  - Uniform test protocols - lab and FIELD
  - Certify technologies/tools
  - Reassess technologies/tools
- **Communicate assessments with responders**
- **Develop strategy for addressing unmet needs**
  - Rapid prototyping/development
  - Longer term research

Homeland Security will depend, in part, on effectiveness of these technologies

Does this work?

Does this solve the right problem?

How do I test this?

NOW AVAILABLE!

Radiation/Multi-Toxin Detection Meter

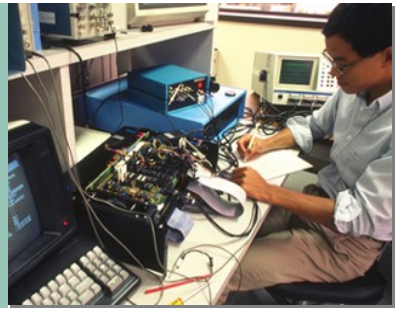
$299.99*

- **Advanced Radiation and Bio-Chemical Agent Protection!**
- **Industry Leading Working Duration**
- **Completely Self-Contain**
- **Compa Desigr**

**** Special GSA rates on request***

How do I use this?

Will this work with my other devices?



Should I buy this? How do I comparison shop?

Process for Managing DHS Standards for All Elements of the Mission

Process to Develop User Guidance on Existing Technologies

Assessment of Existing Radiation Pagers

Guidelines

Performance Specifications

Test Protocols

Product Comparison

	Product A	Product B	Product C
Criterion 1	◐	◐	○
Criterion 2	◐	◐	●
Criterion 3	●	◐	●
Criterion 4	●	●	●
Criterion 5	○	●	●

OKAY DHS,

you are now 12 weeks old,

what have you done for us?

Progress on Ensuring Effectiveness of Radiation Detection Devices

- **Draft standards released in March**
  - **Standards cover four classes of equipment - pagers, alarming hand-held, identifying hand-held, and portal monitors**
  - **Input from users provided constraints on many aspects of the devices**
- **Standards currently in comment resolution phase, final ANSI standards expected to be released in July**
- **Formal test protocols are being finalized**
- **Initial test results show significant shortcomings in current equipment**
  - **Some issues can be addressed by SOPs and training**
  - **Other issues can only be corrected by the manufacturers**
  - **Additional and more rigorous testing will be performed to verify initial findings**

Progress on Ensuring Effectiveness of Bio-agent Detection Devices

- **DHS and DOD have begun cooperative work on developing a formal test method and hand-held immunoassay kits - for detection of bulk anthrax**
- **Testing of the kits will proceed immediately after the test method is approved**
- **Next steps will be to:**
  - **Generalize the test method for use in a broader range of bio-agents and specific techniques**
  - **Initiate work on test methods for environmental sampling**

Progress in Ensuring Effectiveness for Communication Interoperability

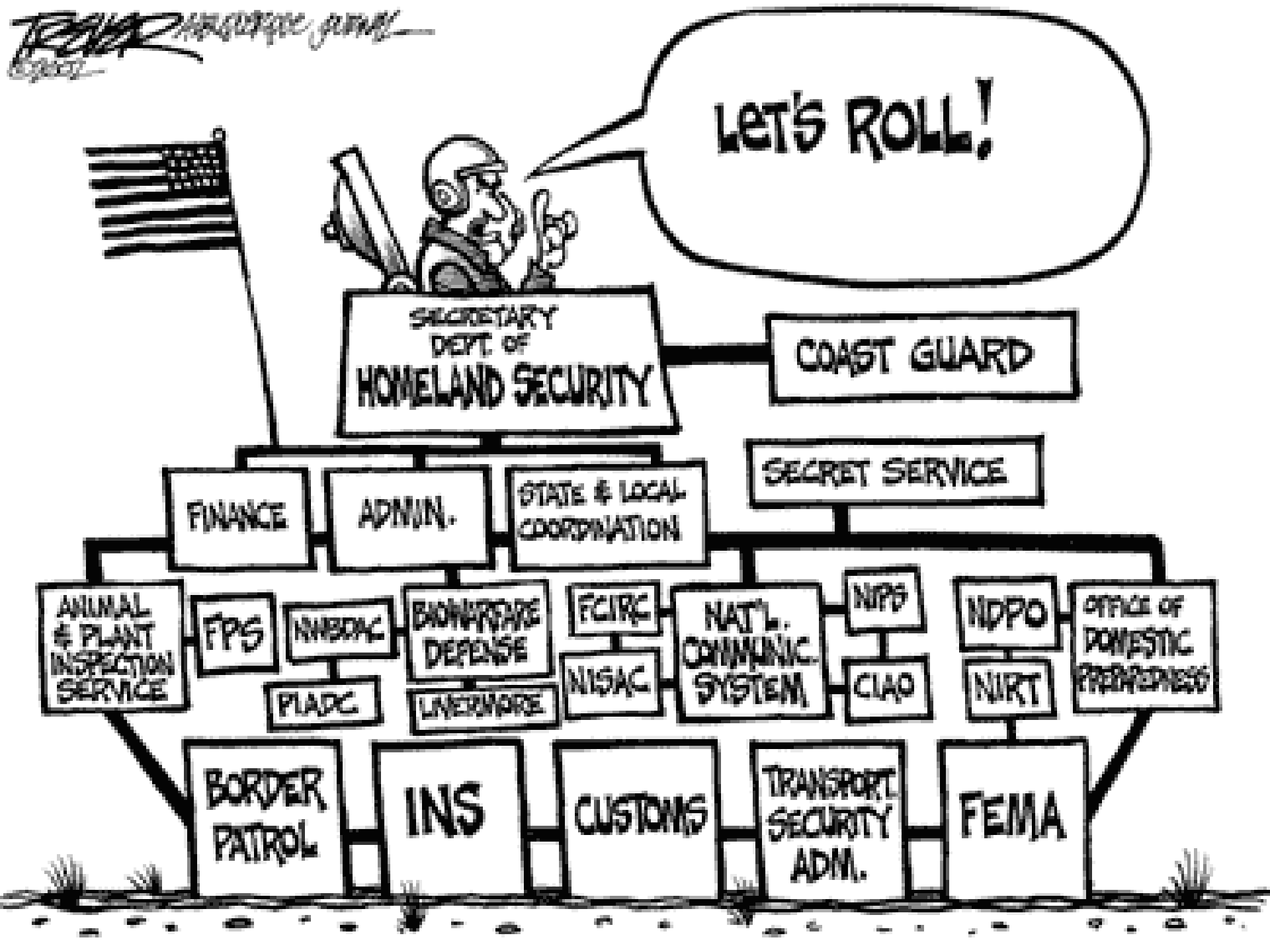
- **Project “SAFECOM”, transferred to S&T, is focused on addressing state and local public safety communication needs and will be the umbrella for integrating all related efforts.**
- **Requirements from the emergency responder community are being factored in to grant guidance.**
- **“Summit” on Interoperability is being held in late June to facilitate identifying additional needs related to communication interoperability.**

Progress on Ensuring Effectiveness of Operators

- **Development of emergency responder personnel certification and training standards are a critical element in ensuring system effectiveness.**
- **Initial meetings have been held to address needs for consistent training approaches - across federal, state, and local levels.**

Other Major Standards Initiatives

- **Development of a network of certification labs**
- **Participation in decontamination standards development with EPA and others**
- **Expansion of capabilities for detection of a broader suite of chemical agents**
- **Initiation of standards development for physical security components**
- **Addressing the need for standards for models, analyses, and information**
- **Initiation of work into standards for conventional missions**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